

Appl. No. 09/465,629
Amdt. dated June 1, 2004
Reply to Office Action of March 30, 2004

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions, and listings, of claims:

1 1. (Previously Presented) A method of routing a data unit targeted to one of a
2 plurality of entities in a network, comprising:
3 receiving the data unit, the data unit including security information and
4 address information, the security information including Internet Security Association and
5 Key Management Protocol (ISAKMP) information; and
6 translating the address information to an address of a target network entity
7 based on the ISAKMP information.

1 2. (Original) The method of claim 1, wherein the address information in the
2 data unit includes a common address associated with the plurality of network entities, and
3 each network entity is assigned a unique network address, and wherein translating the
4 address information includes translating the common address to one of the unique
5 network addresses.

1 3. (Original) The method of claim 1, wherein receiving the data unit includes
2 receiving an Internet Protocol packet.

1 4. (Original) The method of claim 3, wherein translating the address
2 information includes translating an Internet Protocol destination address.

1 5. - 7. (Canceled)

1 8. (Previously Presented) The method of claim 7, wherein translating the
2 address information includes translating the address information based on initiator and
3 responder cookies of the ISAKMP information.

Appl. No. 09/465,629
Amdt. dated June 1, 2004
Reply to Office Action of March 30, 2004

1 9. (Previously Presented) The method of claim 1, further comprising creating
2 one or more address translation tables used in the translation of address information, the
3 one or more address translation tables each containing the address of at least one of the
4 network entities and ISAKMP information associated with the at least one network
5 entity.

1 10. (Previously Presented) The method of claim 9, further comprising
2 matching the ISAKMP information in the data unit with the information in the one or
3 more address translation tables.

1 11. (Previously Presented) A router for use in a network having one or more
2 entities, the router comprising:
3 an interface adapted to receive a data unit, the data unit containing a field
4 having security information, the security information including Internet Security
5 Association and Key Management Protocol (ISAKMP) information; and
6 a translator adapted to generate an identifier of a network entity that the
7 data unit is targeted for based on the ISAKMP information.

1 12. (Original) The router of claim 11, wherein the translator includes a many-
2 to-one network address translator.

1 13. (Original) The router of claim 11, wherein the data unit further contains an
2 address associated with the router.

1 14. (Original) The router of claim 13, wherein the translator is adapted to
2 further replace the address with the identifier of the target network entity.

1 15. (Original) The router of claim 11, wherein the data unit includes an
2 Internet Protocol packet.

1 16. (Canceled)

Appl. No. 09/465,629
Amdt. dated June 1, 2004
Reply to Office Action of March 30, 2004

1 17. (Previously Presented) The router of claim 15, wherein the data unit
2 contains initiator and responder cookies in an ISAKMP header.

1 18. (Original) The router of claim 11, further comprising a storage medium
2 storing one or more tables containing routing information accessible by the translator.

1 19. (Original) The router of claim 18, wherein the routing information
2 includes security information and a corresponding identifier of a network entity.

1 20. (Previously Presented) An article including one or more machine-readable
2 storage media containing instructions for routing a data unit targeted to an entity on a
3 network, the instructions when executed causing a system to:
4 receive the data unit, the data unit containing security information to
5 provide secure communications of the data unit, the security information including
6 Internet Security Association and Key Management Protocol (ISAKMP) information;
7 and
8 determine an address of the network entity based on the ISAKMP
9 information.

1 21. (Previously Presented) The article of claim 20, wherein the one or more
2 machine-readable storage media contain instructions that when executed causes the
3 system to translate an address in the data unit to the address of the network entity based
4 on the ISAKMP information.

1 22. - 23. (Canceled)

1 24. (Previously Presented) The article of claim 20, wherein the one or more
2 machine-readable storage media contain instructions that when executed causes the
3 system to access an address translation table to match the ISAKMP information in the
4 data unit to information in the address translation table.

Appl. No. 09/465,629
Amdt. dated June 1, 2004
Reply to Office Action of March 30, 2004

1 25. (Previously Presented) The article of claim 24, wherein the one or more
2 machine-readable storage media contain instructions that when executed causes the
3 system to match address and ISAKMP information in the data unit with address and
4 ISAKMP information in the address translation table.

1 26. (Previously Presented) A data signal embodied in a carrier wave
2 comprising one or more code segments containing instructions for routing a data unit to
3 one of a plurality of network entities, the instructions when executed causing a system to:
4 receive the data unit having security information and a destination address,
5 the security information including Internet Security Association and Key Management
6 Protocol (ISAKMP) information;
7 access one or more translation tables each containing ISAKMP
8 information and an address of a network entity; and
9 convert the destination address of the data unit to the network entity
10 address based on the ISAKMP information and the address in the one or more translation
11 tables.

1 27. (Previously Presented) A storage medium containing a data structure
2 accessible by a system for routing a data unit to an entity in a network, the data unit
3 containing a first destination address and the network entity having a second address, the
4 data structure comprising the first destination address, the second address, and Internet
5 Security Association and Key Management Protocol (ISAKMP) information useable by
6 the system to match the first destination address to the second address based on the
7 ISAKMP information.

1 28. (Previously Presented) A communications network, comprising:
2 a first network including a plurality of entities and a router, the router
3 including a network address translator; and

Appl. No. 09/465,629
Amdt. dated June 1, 2004
Reply to Office Action of March 30, 2004

4 a node capable of communicating data units with entities in the first
5 network, each data unit including Internet Security Association and Key Management
6 Protocol (ISAKMP) information,
7 the network address translator adapted to convert a destination address in a
8 received data unit from the node to an address of one of the entities based on the
9 ISAKMP information in the received data unit.

1 29. - 34. (Canceled)

1 35. (Previously Presented) The router of claim 17, wherein the translator is
2 adapted to generate the identifier of the network entity based on the initiator and
3 responder cookies in the ISAKMP header.

1 36. (Previously Presented) The article of claim 21, wherein the data unit
2 contains an ISAKMP header having initiator and responder cookies, wherein translating
3 the address in the data unit comprises translating the address based on the initiator and
4 responder cookies in the ISAKMP header.